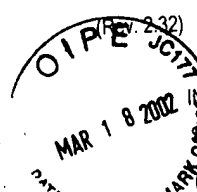


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| FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE <div style="text-align: center;">  </div> INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary) | ATTY. DOCKET NO. BEH-7270D | SERIAL NO. 9/989,757 |
| | APPLICANT Western, et al. | |
| | FILING DATE November 20, 2001 | GROUP 1656 |

U.S. PATENT DOCUMENTS

| U.S. PATENT DOCUMENTS | | | | | | | FILING DATE IF APPROPRIATE |
|-----------------------|-----|-----------------|------------|------------------|--------------|----------|-------------------------------|
| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | |
| AS | A01 | *5,541,311 | 30 Jul 96 | DAHLBERG, et al. | 536 | 23.7 | |
| | A02 | *5,614,402 | 25 Mar 97 | DAHLBERG, et al. | 435 | 199 | |
| | A03 | *5,888,780 | 30 Mar 99 | DAHLBERG, et al. | 435 | 91.53 | |
| | A04 | *5,843,654 | 01 Dec 98 | HEISLER, et al. | 435 | 6 | |
| | A05 | *5,573,907 | 12 Nov 96 | CARRINO, et al. | 435 | 6 | |
| | A06 | *5,210,015 | 11 May 93 | GELFAND, et al. | 435 | 6 | |
| | A07 | *5,792,614 | 11 Aug 98 | WESTERN, et al. | 435 | 6 | |
| | A08 | *5,487,972 | 30 Jan 96 | GELFAND, et al. | 435 | 6 | |
| | A09 | *5,422,253 | 06 June 95 | DAHLBERG, et al. | 435 | 91.53 | |
| | A10 | *4,683,195 | 28 Jul 87 | MULLIS, et al. | 435 | 6 | |
| | A11 | *4,683,202 | 28 Jul 87 | MULLIS, et al. | 435 | 91 | |
| | A12 | *4,800,159 | 24 Jan 89 | MULLIS, et al. | 435 | 172.3 | |
| | A13 | *4,965,188 | 23 Oct 90 | MULLIS, et al. | 435 | 6 | |
| | A14 | *5,008,182 | 16 Apr 91 | SNINSKY, et al. | 435 | 5 | |
| | AS | A15 | *5,011,769 | 30 Apr 91 | DUCK, et al. | 435 | 6 |

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02

SECTION PATENT DOCUMENTS

FOREIGN PATENT DOCUMENTS

| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUBCLASS | TRANSLATION | |
|---------------------|-----|-----------------|-----------|---------|-------|----------|-------------|----|
| | | | | | | | YES | NO |
| AS | B01 | *WO 92/02638 | 20 Feb 92 | PCT | | | | |
| | B02 | *WO 91/17264 | 14 Nov 91 | PCT | | | | |
| | B03 | *WO 89/09284 | 05 Oct 89 | PCT | | | | |
| | B04 | *WO 89/10415 | 02 Nov 89 | PCT | | | | |
| | B05 | *0 601 834 A1 | 15 Jun 94 | EPO | | | | |
| | B06 | *578 138 | 12 Jan 94 | EPO | | | | |
| | B07 | *0 439 182 A2 | 31 Jul 91 | EPO | | | | |
| | B08 | *0 473 155 A2 | 04 Mar 92 | EPO | | | | |

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

| | | |
|--|-----|--|
| | C01 | |
| | C02 | |
| | C03 | |

* References were previously cited by the Applicant or by the Examiner and thus copies of these references are not being resubmitted with this statement. Copies of the prior PTO-1449 and -892 forms are enclosed herein. See 37 C.F.R. §1.98(d).

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|---------------------------------|--------------------------------|
| Examiner <i>Alenah H. Sp...</i> | Date Considered 4/29/03 |
|---------------------------------|--------------------------------|

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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

| | |
|----|---|
| C1 | *Longley, et al., <i>Characterization of the 5' to 3' exonuclease associated with Thermus aquaticus DNA polymerase</i> , Nucleic Acids Research, 18:24, pp 7317-7322, 1990 |
| C2 | *Holland, et al., <i>Detection of specific polymerase chain reaction product by utilizing the 5' to 3' exonuclease activity of Thermus aquaticus</i> , Proc. Natl. Acad. Sci. USA, 88:7276-7280, 1991 |
| C3 | *Lyamichev, et al., <i>Structure-Specific Endonucleolytic Cleavage of Nucleic Acids by Eubacterial DNA Polymerases</i> , Science, 260:778-783, 1993 |
| C4 | *Saiki, et al., <i>Primer Directed Enzymatic Amplification of DNA with a Thermostable DNA Polymerase</i> , Science, 239:487-491, 1988 |
| C5 | *Saiki, et al., <i>Enzymatic Amplification of β-Globin Genomic Sequences and Restriction Site Analysis for Diagnosis of Sickle Cell Anemia</i> , Science, 230:1350-1354, 1985 |
| C6 | *Van Brunt, <i>Amplifying Genes: PCR and Its Alternatives</i> , BioTechnology, 8:291-294, 1990 |
| C7 | *Stratagene Catalog, p. 30, 1988 |

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Examiner

Alexander H. [Signature]

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9/24/03

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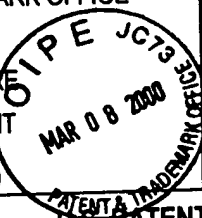
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APPLICANT

Western, et al.

FILING DATE

November 15, 1999

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1643- 1655

U.S. PATENT DOCUMENTS

| EXAMINER INITIAL | REF # | DOCUMENT NUMBER | DATE | NAME | CLASS | SUBCLASS | FILING DATE APPROPRIATE |
|---------------------|-------|-----------------|-----------|------------------|-------|----------|----------------------------|
| DBJ | A1 | *5,541,311 | 30 Jul 96 | DAHLBERG, et al. | 536 | 23.7 | |
| | A2 | *5,614,402 | 25 Mar 97 | DAHLBERG, et al. | 435 | 199 | |
| | A3 | *5,888,780 | 30 Mar 99 | DAHLBERG, et al. | 435 | 91.53 | |
| | A4 | *5,843,654 | 01 Dec 98 | HEISLER, et al. | 435 | 6 | |
| | A5 | *5,573,907 | 12 Nov 96 | CARRINO, et al. | 435 | 6 | |
| | A6 | *5,210,015 | 11 May 93 | GELFAND, et al. | 435 | 6 | |
| | A7 | *5,792,614 | 11 Aug 98 | WESTERN, et al. | 435 | 6 | |
| | A8 | *5,487,972 | 30 Jan 96 | GELFAND, et al. | 435 | 6 | |
| | A9 | *5,422,253 | 06 Jun 95 | DAHLBERG, et al. | 435 | 91.53 | |
| | A10 | *4,683,195 | 28 Jul 87 | MULLIS, et al. | 435 | 6 | |
| | A11 | *4,683,202 | 28 Jul 87 | MULLIS, et al. | 435 | 91 | |
| | A12 | *4,800,159 | 24 Jan 89 | MULLIS, et al. | 435 | 172.3 | |
| | A13 | *4,965,188 | 23 Oct 90 | MULLIS, et al. | 435 | 6 | |
| | A14 | *5,008,182 | 16 Apr 91 | SNINSKY, et al. | 435 | 5 | |
| DBJ | A15 | *5,011,769 | 30 Apr 91 | DUCK, et al. | 435 | 6 | |

FOREIGN PATENT DOCUMENTS

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|---------------------|-------|-----------------|-----------|---------|-------|----------|---------------|
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| | B3 | *WO 89/09284 | 05 Oct 89 | PCT | | | |
| | B4 | *WO 89/10415 | 02 Nov 89 | PCT | | | |
| | B5 | *O 601 834 A1 | 15 Jun 94 | EPO | | | |
| | B6 | *578 138 | 12 Jan 94 | EPO | | | |
| | B7 | *O 439 182 A2 | 31 Jul 91 | EPO | | | |
| DBJ | B8 | *O 473 155 A2 | 04 Mar 92 | EPO | | | |

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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

| | | |
|---|----|---|
| DBJ | C1 | *Longley, et al., <i>Characterization of the 5' to 3' exonuclease associated with Thermus aquaticus DNA polymerase</i> , Nucleic Acids Research, 18:24, pp 7317-7322, 1990 |
| | C2 | *Holland, et al., <i>Detection of specific polymerase chain reaction product by utilizing the 5' to 3' exonuclease activity of Thermus aquaticus</i> , Proc. Natl. Acad. Sci. USA, 88:7276-7280, 1991 |
| | C3 | *Lyamichev, et al., <i>Structure-Specific Endonucleolytic Cleavage of Nucleic Acids by Eubacterial DNA Polymerases</i> , Science, 260:778-783, 1993 |
| | C4 | *Saiki, et al., <i>Primer-Directed Enzymatic Amplification of DNA with a Thermostable DNA Polymerase</i> , Science, 239:487-491, 1988 |
| | C5 | *Saiki, et al., <i>Enzymatic Amplification of β-Globin Genomic Sequences and Restriction Site Analysis for Diagnosis of Sickle Cell Anemia</i> , Science, 230:1350-1354, 1985 |
| | C6 | *Van Brunt, <i>Amplifying Genes: PCR and Its Alternatives</i> , BioTechnology, 8:291-294, 1990 |
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